

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1 and 3-8 are now present in the application. The specification and claim 1 have been amended. Claim 2 has been cancelled. Claim 1 is independent. Reconsideration of this application, as amended, is respectfully requested.

Specification Objections

The specification has been objected to due to the presence of minor informalities. In view of the foregoing amendments, in which the Examiner's helpful suggestions have been followed, it is respectfully submitted that this objection has been addressed. Reconsideration and withdrawal of this objection are respectfully requested.

Claim Rejections Under 35 U.S.C. §112

Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. These rejections are respectfully traversed.

The Examiner alleged that the specification fails to disclose "collecting redundant optical signal and combining the signals to a single optical signal for conversion into an electrical signal for further processing" as recited in claim 1. Applicants respectfully disagree. In particular, the specification on page 3, line 14 through page 5, line 2 states:

Refer to Fig 1 first for describing the system. Multiple signal sources to be transmitted to the display unit 800, such as signals from video cameras 910, set-

top boxes 920, DVD players 930, TV tuners 940, video tape players 950 and the like are selected for transmission by the video-audio switch unit 300. The signals are conditioned, if necessary, by the "analog/Digital converter" 400 since the native format of optical information transmission is expected to be digital. Although analog modulation of the beam is another consideration, more technical challenges occur. Signals from multiple sources are combined if desired by the multiplexer 500 which also performs data operations such as adding information for parity checking or other sorts of error checking at the receiver 200 and for "framing" the data for serial transmission. The resultant data stream is applied to the transmitter 100 which consists of one or more separate units which transmit identical data as illustrated in Fig. 2. The transmitting units contain beam forming optics which may be covered by a subsequent disclosure.

The receiver 200, which is designed to have wide receiving angle to receive high speed data, consists of one or more separate units which receive the data. Each receiver contains beam collection optics to relay the beam to the photodiode 230 as illustrated in Figure 2. The resultant electrical signal from the receiver 200 is applied to the demultiplexer 600 which separates the transmitted signals from the additional information and performs other data operations, such as recovering the data clock as a timing reference for subsequent data operations, error checking and correction and converting the serial data stream to appropriately formatted parallel data. The recovered data is conditioned, if necessary, for input to the display unit 800 by the digital/analog converter 700.

Refer to Fig. 2, redundant signal information 510A and 510B from multiplexer 500 is sent to a plurality of separate transmitting units 100A and 100B in the transmitter 100, which are physically separated from each other and contain beam forming optics as mentioned previously. These units 100A and 100B emit separate beams 110A and 110B which are received by a plurality of separate receiving units 210A and 210B in the receiver 200 located exterior to the display unit 800. The receiving units 210A and 210B contain beam collection optics and deliver the optical signals 220A and 220B to a single photodiode 230. The optical signals 220A and 220B are then converted into electrical signals and relayed to 600 for further processing.

Please refer to Fig. 3 illustrating the second embodiment of the invention. The receiving units 210A, 210B containing beam collection optics and photodiodes 230A, 230B are implemented in two independent receiving units 200A, 200B. These receiving unit 200A, 200B send electrical signals 240A from photodiode 230A and 240B from the photodiode 230B representing the redundant data sent from the separate transmitting units 100A and 100B to the demultiplexer 600. The de-multiplexer 600 either combines the electrical signal 240A from the receiving unit 200A and the electrical signal 240B from the receiving unit 200B into a single composite signal for further processing or selects one of the electrical signals to be used for further processing based on some measure of signal integrity such as the number of errors or the strength of the received signal. (Emphasis added.)

Therefore, the redundant signals 510A and 510B are collected by the receiving units 210A and 210B, and the electrical signal 240A from the receiving unit 200A and the electrical signal 240B from the receiving unit 200B into a single composite signal. Accordingly, the specification of the present application fully discloses the above feature recited in claim 1 to enable one skilled in the art to make and/or use the present invention.

Accordingly, all pending claims comply with the enablement requirement and are definite and clear. Reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, first and second paragraphs, are therefore respectfully requested.

Claim Rejections Under 35 U.S.C. §§ 102 & 103

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Agurok, U.S. Patent No. 6,369,925. Claims 2-4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Agurok in view of Miyamori, U.S. Patent No. 6,278,537. Claims 2-4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Agurok in view of Ruziak, U.S. Patent No. 6,907,013. These rejections are respectfully traversed.

In light of the foregoing amendments to the claims, Applicants respectfully submit that these rejections have been obviated and/or rendered moot. As the Examiner will note, independent claim 1 has been amended to recite a combination of elements including “a plurality of transmitting units from multiple sources for sending optical signals via optical beams” and “each of the receiving units further comprises a photodiode for converting the single optical signal into the electrical signal for inputting to the display device by the digital/analog converter.” Applicants respectfully submit that the above combination of elements as set forth in

amended independent claim 1 is not disclosed nor suggested by the references relied on by the Examiner.

The present invention provides a plurality of transmitting units from multiple sources, such as signals from video cameras 910, set-top boxes 920, DVD players 930, TV tuners 940, video tape players 950, for sending optical signals. Unlike the present invention, Agurok nowhere discloses a plurality of transmitting units from multiple sources for sending optical signals via optical beams and that each of the receiving units further comprises a photodiode for converting the single optical signal into the electrical signal for inputting to the display device by the digital/analog converter as recited in amended claim 1.

In addition, the optical signal of the present invention can apply to the same wavelength or different wavelengths. Unlike the present invention, the optical signal of Agurok merely applies to the same wavelength.

With regard to the Examiner's reliance on the secondary references, these references have only been relied on for their teachings related to some dependent claims. These references also fail to disclose the above combination of elements as set forth in amended independent claim 1. Accordingly, these references fail to cure the deficiencies of Agurok.

Accordingly, none of the references utilized by the Examiner individually or in combination teach or suggest the limitations of amended independent claim 1 or its dependent claims. Therefore, Applicants respectfully submit that claim 1 and its dependent claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 and 103 are respectfully requested.

CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but merely to show the state of the prior art, no further comments are necessary with respect thereto.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Joe McKinney Muncy, Registration No. 32,334 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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